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ABSTRACT

This paper is a report on the findings of a study conducted in a graduate level course for teaching and learning with the Internet for high school teachers working with students having severe learning and emotional disabilities. Qualitative interview data were used to explore issues throughout the course as teachers used information in their classrooms. The results indicate that ongoing inservice education needs to be specific to identified classroom needs. Teachers integrating technology into the special education classroom face an extremely diverse student body. There should be ongoing development for teachers as they work through teaching and learning with the Internet in their classrooms. Results also indicate that it is important to realize how special education teachers can use the tool in their classrooms, and to understand why they use the Internet and what it accomplishes for their own personal teaching and learning needs. (Author/MES)

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Teaching and Learning with the Internet: Issues for Training Special Education Teachers

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Abstract: This paper is a report on the findings of a study conducted on a graduate level course for teaching and learning with the Internet for high school teachers working with students having severe learning and emotional disabilities. Qualitative interview data was used to explore issues throughout the course as teachers used information in their classrooms. The results indicate that ongoing inservice education needs to be specific to identified classroom needs. Teachers integrating technology into the special education classroom face an extremely diverse student body. There should ongoing development for teachers as they work through teaching and learning with the Internet in their classrooms. Results also indicate that it is important to realize how special education teachers can use the tool in their classrooms, understand why they use the Internet, what it accomplishes for their own personal teaching and learning needs.

Introduction

Inservice staff development for technology has historically consisted of school district courses designed to instruct teachers on emerging issues for teaching and learning within the classroom. These courses are generally brief, short term, and range from one day to a series of three or four days across a semester (Claxton, 1996). Courses designed in such a way do not meet the recommendations made in the literature for continuous, ongoing inservice technology-based staff development training (U.S. Department of Education, 1997). Many of these courses do not deal effectively with the integration of new teaching ideas into the curriculum because of the quality and quantity of training necessary for teacher growth. Given recent innovations in technology and teacher practice, many inservice staff development efforts have not changed. As a result, the potential benefits for innovative teaching methodologies and tools, such as student directed learning and the Internet are not fully understood. Ongoing research is currently needed to identify the development role of the teacher in a high technical classroom and keep this role as clear as possible (Rogers & Mahler, 1992).

The role of the classroom special education teacher has changed due to a variety of forces that have been effecting the field of teaching. Laws in special education are requiring the consideration of assistive technology in the Individualized Education Plan (Behrmann, 1998). There is an increasing amount of money available for schools to purchase technology and the social context for 21st century schooling is quickly evolving. Also, there have been advances in our understanding of how people learn (Doyle, W., 1979). Additionally, standards have been developed by the federal government, state educational agencies, local school boards, and within national teaching organizations (International Society for Technology in Education - ISTE, Council for Exceptional Children - CEC) to encourage

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effective technology practice. Access to the Internet has greatly increased and teachers are changing classroom curriculum to accommodate new information tools. All of these forces combined place the special education classroom teacher in an exciting yet difficult position. In order to facilitate the position of teachers, ongoing support and training is necessary.

The purpose of this study was to question the development of teacher attitudes and practices of the Internet through elements within a university course designed for technology integration. These questions are critical because of the increasing presence of the Internet in schools, but more specifically, because of the necessity to assess pedagogical beliefs and experiences with new forms of learning (Dede, 1998) while exploring the way learning environments are changing because of access to the Internet (U.S. Department of Education, 1995; Benton Foundation, 1997).

An inservice university training course developed for special educators learning to integrate the Internet into classroom instruction. The goal of this course was to expose teachers to emerging technologies and innovative forms of teaching as well as provide the teachers with the information, skills, and problem solving methods to critically think about the integration of technology into the special education curriculum. The broader scope of this study answered questions about issues for teaching and learning with the Internet for high school students with severe emotional and learning disabilities and the context of special schools and new technology tools. An additional question included in this study provides the specific focus of this paper:

> *How do high school teachers working with student having severe emotional and learning disabilities report using the Internet after participating in an inservice training course designed for technology integration?*

The Study

Data was collected from 5 course participants in course EDSE600 - Technology Integration in the Classroom during the 1997-98 school year. The course was contracted with the Training and Development school, a non-profit organization serving students with severe emotional and learning disabilities in a level 5 restricted facility. There were 24 teachers selected to participate in the course that were currently working within each of the four schools. Two of these teachers were male and three were female. All of these teachers were within their first two years of teaching within their school, although each had prior experiences working with students having severe emotional and learning disabilities. In addition, all of these teachers were working on ED/LD certification during this time period.

As part of a research study, data was collected from course participants to answer questions about the issues for teaching and learning with the Internet in their classrooms. Data was also collected to explore how school and student context influences special education teachers' use of new technology tools and to analyze how teachers integrate new knowledge of teaching innovations throughout a inservice training course. Data consisted of interviews, a teacher post-survey, electronic course discussions on Townhall (an electronic discussion group), individual teacher journals, and teacher lesson plans.

Administrator and teacher interviews were the primary mode of data collection for this research question. The teachers were selected mid-point in the semester and interviewed twice, once during and once after the course was completed. Two out of the available eight administrators were chosen for interviews based on time restraints and availability. Interview

data was explored using qualitative analysis methods (Miles & Huberman, 1986 & Maxwell, 1986). Emerging themes and ideas were used to justify research questions and to synthesize and report issues related to teaching and learning with the Internet in their schools/classrooms. A post-survey was used as one method to triangulate interview data and collect teacher reports on the last day of class.

Findings

The impact of an inservice training course for high school special education teacher of students with severe emotional disabilities is multidimensional. An analysis of the data reflected many issues teachers face for instructing these students and the potential uses and limitations of the Internet as a tool for teaching and learning. Teachers of students with disabilities have additional factors to consider when planning for the Internet. It is therefore important to know why and how teachers are using the Internet to facilitate the integration of the tool into the classroom. The dialogue between the instructor and teacher during this course was important for developing knowledge about what was working in the classroom as well as the content/skills teachers needed in the course to continue their development. A synopsis of teacher responses and an item from the post-survey are reported in the following sections.

Teachers Working with the Internet

Teachers responded differently to taking students into the computer lab. When the issues of risk and whether or not teachers thought there was risk involved in taking students to the computer lab, Teacher D was the only person who was too "nervous" to take them into the lab. Other teachers expressed various levels of frustration while working in the lab on the Internet. Some of the frustration had to do with the "amount of printing that students do" and the fact that they did not "know how to trouble shoot". Teacher A expressed that he did not have the time to plan for Internet activities and Teacher E stated that he liked using the computer lab, but that he could never go in there (the lab) without having a clear idea of what he was going to do. "Every time I have done that, it causes problems and everybody wants to print. I guess the reason why the Internet doesn't bother me because you really don't have to worry about student work getting erased. Something crashes or you log-on and it is busy and you can come back later and it is there".

Teacher B liked using the Internet because she could integrate it into her teaching style and how she thought students learned:

> Interviewer: *Have you made any conclusions about how kids learn differently in class?*
>
> Teacher B: *Actually, I think that the Internet helps them...because it provides that type of accomplishment in their own time and with their own abilities and their own pace. Either they discover the web-site themselves, or I introduce it to them as they go and what they need to do, at the rate that they can do it. You know, and even though the computers are all there together, it is not like you are sitting there and worrying that these kids are finished, because they go looking for something else.*

And if it takes them a few weeks to type up their report, other people are still doing web stuff and it is in their own time frame and it is less intimidating that way.

Teacher C was enthusiastic about her time in the computer lab and working with students on the Internet. This seemed based on how she thought students would engage in activities. It also reduced her individual stress because the use of the Internet was a motivator for students to complete assignments:

> Teacher C: *For me it is easier when I know that I have the computer lab in my schedule in the afternoon. It is easier for me to plan for the computer, because I can see that the whole afternoon is going to be relaxed. So the kids usually behave. I understand that in regular schools that issue might not matter because they don't have the problems that I have working with these students. It is nice that they are motivated by the Internet, because in the morning I can say that if we don't finish what we have to do, we will not be able to go to the computer lab and they finish their classwork.*

However, Teacher C continued to be reluctant to allow students to have e-mail and to interact with other students on the Internet. She did believe that interacting with other students on the Internet would be a good form of learning, but she did not feel comfortable giving them the freedom to 'interact however they want":

> Teacher C: *I'm still thinking I should give the kids a pen pal, but I haven't made a decision about that yet. (The students) would probably get excited about the idea...but I wouldn't try it and I am afraid it wouldn't work right. Even when they went into the translation site on the Internet, they get excited, but the first thing they start writing is all the bad words in English, and you cannot get them back on task.*

Teacher A specifically liked using the Internet because of the resources it provided him as he prepared for his classes:

> Teacher A: *I didn't have a lot of resources as it was, so to have the Internet, where I was doing everything from current events to looking up experts. Instead of having to worry about getting the morning paper, all I have to do is get on the Internet and we go to the Washington Post. Or in the case of my health class, there is always something I can do with the information available on the net.*

Teacher D never took his classes into the computer lab to work with the Internet, but would send students to the librarian to look for materials. At one point, the only access within the school was the librarian's computer. After the school was "hooked-up", Teacher D continued to use the librarian as a resource for the Internet. He liked being able to send students to the librarian to work independently. When President Clinton went to Gambia, Teacher D thought that he could use the Internet with his students; however, he could not find the site that followed Clinton's travels. He became frustrated with searching the Internet and said, " I felt like I missed an opportunity and that really bothered me".

Teacher A, Teacher B, and Teacher E also express negative aspects of the Internet, especially the amount of time that it took to preview sites for students when planning specific

activities because he thought the Internet was so "wide open". They all felt the need to view materials before integrating the Internet into their daily activities:

> Teacher A: *I used (the Internet), I found it to be a great learning tool, but it's time-consuming from the standpoint of a teacher using it to checkout what's there. I've learned the hard way that you really have to preview the stuff to know where everything is.*

Why Teachers Use the Internet

Teachers responded to questions on a post-survey. One of the questions specifically addressed why teachers used the Internet. Their individual responses are reported in tallied format as "frequency of response", for a total of five teachers.

You use the Internet at school because you want:	1	2	3	4
to increase student motivation and participation in their own learning		1		4
to provide opportunities for students who do not have computers at home	1		3	1
to fulfill parents' and students' expectations	2	3		
to give students the skills they need in college	1		2	2
to prepare students for an increasingly technical society			2	3
to help students feel more a part of the global community		1	2	2
to keep up with new technologies yourself to gain access			2	3
to find out about new teaching practices			3	2
to overcome remoteness or geographic isolation in your school or community	2	1	1	1
to reduce your professional isolation through e-mail or collaboration with others	3		2	
to overcome a lack of specialized staff or limited program offerings at your school	1	1	2	1
to access resources or materials that are not available in textbooks or in the library			3	2
to support larger school change efforts by using the Internet as a catalyst for school change			3	2

Table 1: Teacher responses based on a Likert scale ranging from 1 - 4, where 1 = not a reason at all and 4 = very important reason.

Considerations for faculty working with Special Education Teachers

Teachers felt that their knowledge of teaching and having time to develop an inventory of lesson plans was important to their success in the classroom. There were several first year teaching issues related to 'time and priorities'. Teachers needed more time for developing lessons and adapting to a new teaching and learning environment. Apart from school context issues and personal teaching pressures, teachers needed extra time to implement a new "technology innovation". Teachers did not have lessons developed, so they were not integrating the Internet into existing instruction, they were developing new instruction that included Internet integration activities:

> Teacher A: *As a first-year teacher, and because this teaching situation is so overwhelming, I did spend a lot of time calling parents and asking teachers other questions...Since this is my first year of teaching, I don't have many of the resources that they do. There is this other teacher next to me who has worked in the field for a few years and uses the Internet. She has a wealth of projects that she has already done. I would have the same if I had remained in teaching. But I didn't so I have*

been trying to rely on the resources that I have. If I decide to stay here next year, I will spend some time over the summer trying to develop some plans... I think technology has a great ability to enhance teaching...and I think people will develop better ideas about teaching and learning over the next few years.

Since many of these teachers were working on their certification during this course, inservice efforts were necessary to help them meet certification requirements and develop the skills needed to work with technology. Teachers attempted to collaborate with each other but there was limited time during the school day. During class sessions, there was an opportunity for teachers to work collaboratively on academic projects. As a result, teachers shared information and had time to merge new ideas about the Internet within their daily classroom activities.

Conclusions

Ongoing support was necessary for these teachers as they attempted to work with the Internet during instructional activities. These teachers struggled with how to use the Internet with their students. During the span of the course, 4 teachers left the Training & Development schools. Out of the five participants in the study, only three returned for their second year of teaching. For these teachers, the majority of their knowledge about teaching and learning, technology were developed during this course and based on their prior experiences working with these students. In order to increase support for teachers working with these students, inservice education needs to provide teachers with the ideas, time, and support to enable integration of technology into the curriculum. Individuals creating and/or delivering such programs need to think about several things.

First, in order to deliver inservice training specific to the use of the Internet, it was necessary to realize how teachers were using the tool in their classrooms. Teachers expressed that they continue to use the Internet primarily as a search and retrieval tool, however, the methods they used to structure their classrooms and deliver these lessons became more student oriented and directed. Although students were not interacting on the Internet in communication forums, teachers used the information on the Internet to adapt content to individual reading levels and personal capabilities. Teachers expressed difficulty working with the identified texts for their curriculum. Teachers needed to consistently explore new forms of content to deliver to the students. Teachers need to be aware of the literacy opportunities on the web for students with disabilities. Teachers of students with disabilities need to consider how technology can be integrated into their curriculum.

Secondly, it is important to understand why teachers want to use the Internet in their classroom and what it accomplishes for their own personal teaching and learning needs. Teachers felt that working with students on the computers and with the Internet was applicable to student learning, allowed students to work for longer periods of time, increased individualization. Using the Internet both reduced stress and increased stress depending on how familiar teachers were with the computer. Teachers ultimately responded on many different levels in response to using the computer lab and the Internet. Some teachers responded that they liked using the computer lab, worked with their students on a daily basis, but felt uncomfortable with their technology skills. Teachers liked using the Internet because students were often "better behaved". However, when there was a crisis involving technical difficulty, students did not have the patience to wait and give teachers a chance to resolve the

issue. Other teachers seemed to be less concerned with knowing where to go and how to trouble shoot. Still others were too concerned about having technical difficulties and therefore did not make use of the lab. They also used the Internet for accommodating their students, working with real-life materials, and being less teacher-directed while working with the computer. Students seems to respond to teaching and learning more directly in the computer lab and it seemed to take some stress off of the teachers. However, it added additional stress to some teachers because they felt it "took more time" to develop lessons, or made them nervous because they had difficulty controlling "where students were going".

Third, ongoing development for teachers working with students having severe emotional and learning disabilities is important because they may not have the fundamentals provided in methods courses at the preservice education level. A portion major portion of learning happens after they have received a teaching assignment. As a result, one-shot methods for instructional development, especially with technology, may not have lasting influences on classroom instruction.

This course ran over a period of eight months. At the end of the eighth month, there were teachers who still did not know how to complete basic computer functions and were not integrating the Internet into their instruction. In some cases, it wasn't until after the course was over and the last round of interviews were completed, that two of the research study participants started to use the Internet (during the extended school year session). The teacher burnout rate in these programs can be high. Training and "retaining" these teachers can be difficult. It is important to realize how teachers were using the tool in their classrooms, understand why teachers use the Internet in their classroom, what it accomplishes for their own personal teaching and learning needs, and how it "fits" with prior knowledge. Inservice courses that do not meet their specific needs may not influence classroom instruction. Knowing how special education teachers are using the Internet in their instruction, why they are using it, and the open discourse necessary to work with these teachers in the classroom is extremely important.

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